

Evaluation of a Community-Based Intervention (STOP-DM) For Korean Americans With Type 2 Diabetes: Measured Vs. Perceived Health Outcomes



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Background Intervention

- Evaluation of data collected from NIH funded translational study trial (NIDDK R18) of a community-based glucose control intervention program for Korean American immigrants (KAI) with type-2 diabetes mellitus (DM) to test the effectiveness of a multifaceted DM management program (STOP-DM) with regard to the cultural and social needs of KAI with type 2 DM.
 - Study results and demographic data are available
- The intervention was found to significantly reduce A1C among the intervention group
 - 1.19% at 18 weeks and 1.31% at 20 weeks

Evaluation

- It is well documented that individual values, beliefs and behavior operate within a social context and that population perceptions and knowledge should be important elements in the evaluation of programs aimed at improving health.
- Thus, this facet of evaluation investigates the changes in health perception of intervention participants.

Methods

- To determine the interventions effects on perceived health status, questionnaire data were analyzed using SPSS.
- Questions H1 and K45 were selected as representative measures of participants perceived health:

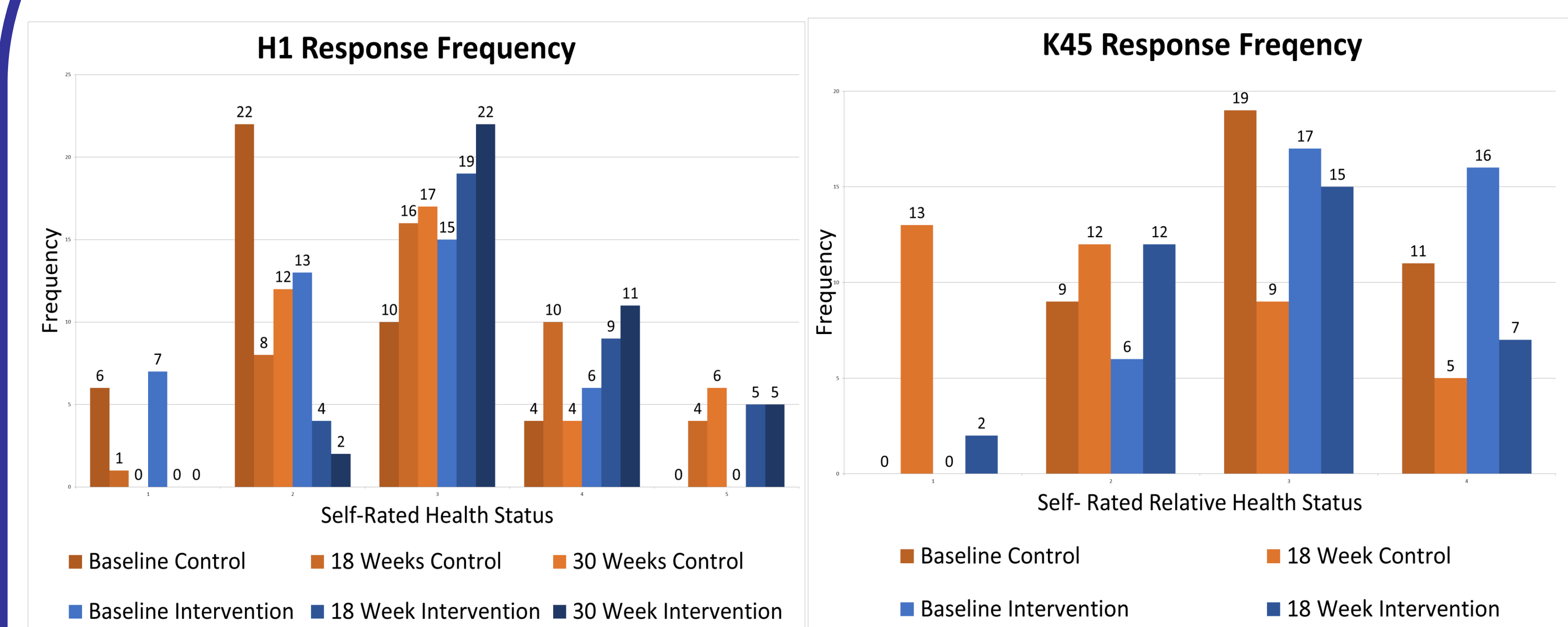
H. Health Status	H. 건강상태 (Health Status)
H1. In general, my health status is: <input type="checkbox"/> 1 excellent <input type="checkbox"/> 3 good <input type="checkbox"/> 5 poor	H1. 나의 건강상태는 전반적으로: <input type="checkbox"/> 1 매우 좋다 <input type="checkbox"/> 2 좋다 <input type="checkbox"/> 3 보통이다 <input type="checkbox"/> 4 나쁘다 <input type="checkbox"/> 5 매우 나쁘다
K45. Compared to other people your age, would you say your health is: (circle one) <input type="checkbox"/> 01 Excellent <input type="checkbox"/> 02 Good <input type="checkbox"/> 03 Fair <input type="checkbox"/> 04 Poor	K45. 같은 연배의 사람들과 비교할 때, 귀하의 건강은(하나만 표시): <input type="checkbox"/> 1 아주 좋다 <input type="checkbox"/> 2 좋다 <input type="checkbox"/> 3 괜찮다 <input type="checkbox"/> 4 나쁘다

- The average response frequency of H1 and K45 were compared between the intervention and control (delayed-intervention) groups using independent t-tests and converted in to graphical representation for analysis.

Hypothesis

- Perceived health ratings will be higher with the intervention group than with the control group.
- Cultural tailoring and self-help aspects of the intervention improve participants perceived health status

Preliminary Results



- Bar charts illustrate a trend of increasing frequency scores over time in both groups.

t-test for Equality of Means						
	N	Mean	sd	t	df	Sig. (2-tailed) P-value
H1 Baseline	BASELINE					
	Control	42	3.1905	.86216		
H1 18 Weeks	18 WEEKS					
	Control	39	3.2051	.97817		
H1 30 Weeks	30 WEEKS					
	Control	39	3.1026	1.02070		
Difference of Means (-.15099) Not significant at p=0.05						
Difference of Means (-.19487) Not significant at p=0.05						
Difference of Means (-.37244) Not significant at p=0.05						

t-test for Equality of Means						
	N	Mean	sd	t	df	Sig. (2-tailed) P-value
K45 Baseline	BASELINE					
	Control	42	2.2857	.83478	-1.029	.307
K45 18 Weeks	18 WEEKS					
	Control	39	2.1538	1.03970	-2.615	.011
Difference of Means (-.20209) Not significant at p=0.05						
Difference of Means (-.56410) Significant difference at p=0.05						

- In the intervention group, the mean score for both question H1 and K45 increased in subsequent surveys while scores for the control group decreased slightly.
- The difference of the means between the intervention and control group were significantly different for question K45 and were not significantly different for question H1.

Conclusions

- Evaluation of perceived health data supports measured health outcomes of the intervention, as the mean score of both H1 and K45 increased in the intervention group.
- The differences between the two communities were not as marked as might have been expected.

Future Research

- Further evaluation with respect to demographic and health status of the study population as well as extensive literature review are required to elucidate these findings.

Discussion

- Changes in health perception following population health interventions have often been excluded as key indicators in evaluation.
- Given the increasing focus on community based participatory research, our findings suggest that this type of research is worth considering when selecting indicators to assess the value of multi-sectoral, community-based health interventions in the future.

Acknowledgements

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